20. (New) The field emission display of claim 15, wherein the emitter is a broad area emitter.

REMARKS

Pursuant to the Examiner's restriction requirement under 35 U.S.C. § 121, Applicant elects, without traverse, claims 1-10 and 15-16, drawn to a field emission display.

Claims 1-10, 15, 16 and 18-20 are pending in this application, of which claims 1,2 and 15 are independent. Applicant has amended claim 16 and added new claims 18-20. Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment, which is captioned "**Version with markings to show changes made**." In view of the above amendments and following remarks, Applicant respectfully requests reconsideration and a timely indication of allowance.

Applicant has submitted herewith proposed drawing corrections in accordance with MPEP § 608.02(v) along with a separate letter to the official draftsperson pursuant to MPEP § 608.02(r). The drawing amendment merely conforms the drawings to the specification, and therefore, in no way constitutes new matter. Specifically, figures 2, 3 and 5 have been amended to add reference numerals 23 and 25.

The Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference number 22 which was mentioned in the specification. The specification has been amended on page 8, line 10 to delete the misnumbered reference number 22 and add the correct reference number 24.

The Examiner has objected to the title as being not descriptive. The title has been amended to conform to the Examiner's suggestion.

The Examiner has rejected claims 2 and 16 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner states, "[i]t is unclear as to what the 'longitudinal dimension' is." The drawings have been amended to include a reference number for the longitudinal dimension of the electron emission member. The Examiner also states, with regard to claim 16, "[i]t is unclear as to whether or not the electron emission member aligns itself." Claim 16 has been amended, to overcome this ambiguity.

The Examiner has rejected claims 1-10 and 15-16 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Huang (U.S. Patent. No. 5,595,519) in view of O'Boyle (U.S. Patent. No. 5,708,327).

Independent claim 1 recites "wherein the emitter comprises an electron emission member and an alignment member for aligning the electron emission member". Huang discloses a field emission display with enhanced brightness and contrast, and a method for making such a display. O'Boyle discloses a flat panel display device 50 which includes magnetic field emitter elements 52, wherein the emitter elements 52 include a dopant ferromagnetic material 56 used to produce a permanent magnet in the emitter elements. O'Boyle teaches that "[t]he permanent magnet produces a magnetic field B which acts on electrons emitted from the tip of the emitter 52, producing a restoring force which causes the electrons' motion to be constrained to an approximately parallel set of electric field lines which extend between the cathode and anode electrodes. This causes the emitted electrons to have less divergence at the anode surface . . ." (col. 4, lines 47-53). Thus, O'Boyle teaches aligning the emitted electrons themselves, and does not teach "an alignment member for aligning the electron

emission member" as recited in independent claim 1. As a result, O'Boyle does not teach or suggest the elements of claim 1 and thus does not render claim 1 obvious. Huang does not teach or suggest the elements of claim 1 which are missing from O'Boyle. As a result, O'Boyle and Huang alone or in combination, do not teach or suggest the elements of claim 1 and thus do not render claim 1 obvious. Claims 3, 4, 7, and 8 depend from claim 1. Claim 1 is now believed to be in condition for allowance. As such, Applicant submits that claims 3, 4, 7, and 8 are also in condition for allowance as being dependent from an allowable base claim and for the additional limitations they contain therein.

Independent claim 2 recites "wherein the electron emission member is aligned by the alignment member such that the longitudinal dimension of the electron emission member is substantially vertically extended from the cathode toward the phosphor screen of the anode." As discussed above with respect to claim 1, O'Boyle and Huang alone or in combination, do not teach aligning the electron emission member. In addition, O'Boyle and Huang alone or in combination, do not teach aligning the electron emission member such that the longitudinal dimension of the electron emission member is substantially vertically extended from the cathode toward the phosphor screen of the anode, as is recited in claim 2. As a result, O'Boyle and Huang alone or in combination, do not teach or suggest the elements of independent claim 2 and thus do not render claim 2 obvious. Claims 5, 6, 9, and 10 depend from claim 2. Claim 2 is now believed to be in condition for allowance. As such, Applicant submits that claims 5, 6, 9, and 10 are also in condition for allowance as being dependent from an allowable base claim and for the additional limitations they contain therein.

Independent claim 15 recites "an alignment member to align the electron emission member". As discussed above with respect to

claim 1, O'Boyle and Huang alone or in combination, do not teach aligning the electron emission member. As a result, O'Boyle and Huang alone or in combination, do not teach or suggest the elements of independent claim 15 and thus do not render claim 15 obvious. Claim 16 depends from claim 15. Claim 15 is now believed to be in condition for allowance. As such, Applicant submits that claim 16 is also in condition for allowance as being dependent from an allowable base claim and for the additional limitations it contains therein. In addition, claim 16 has been amended to recite "wherein the electron emission member comprises a longitudinal dimension, and is aligned by the alignment member such that the longitudinal dimension of the electron emission member is substantially perpendicular to the cathode". O'Boyle and Huang alone or in combination, do not teach aligning the electron emission member such that the longitudinal dimension of the electron emission member is substantially perpendicular to the cathode, as is recited in claim 16. For this additional reason, O'Boyle and Huang alone or in combination, do not teach or suggest the elements of claim 16 and thus do not render claim 16 obvious.

For the foregoing reasons, Applicant respectfully requests that the rejection of claims 1-10, 15 and 16 over Huang in view of O'Boyle be withdrawn.

Claims 18, 19 and 20 have been added and depend from claims 1, 2 and 15 respectively. As previously discussed, Applicant respectfully submits that claims 1, 2 and 15 are in condition for allowance. As such, Applicant submits that claims 18-20 are also in condition for allowance as being dependent from an allowable base claim and for the additional limitations they contain therein. In addition, claims 18-20 each recite that "the emitter is a broad area emitter." None of the cited, specifically O'Boyle and Huang, teach a broad area emitter. O'Boyle and Huang each teach the use of tip emitters. For this additional reason, Applicant

respectfully submits that claims 18-20 are in condition for allowance.

In view of the above amendments and remarks, Applicant respectfully submits that claim 1-10, 15, 16, and 18-20 are in condition for allowance, and a timely indication of allowance is respectfully requested. If there are any remaining issues that can be addressed by telephone, Applicant invites the Examiner to contact the undersigned at the number indicated.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By _____
Constantine Marantidis
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626/795-9900

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Please delete the title and replace it with the following:

FIELD EMISSION DISPLAY [~~AND METHOD OF FABRICATING SAME~~] WITH ELECTRON EMISSION MEMBER AND ALIGNMENT MEMBER

On page 6, please delete the paragraph beginning on line 3, and replace it with the following:

With the application of a magnetic field, the alignment member 20 aligns the electron emission member 24 in a predetermined direction. The electron emission member 24 is preferably aligned such that the longitudinal dimension 23 of the electron emission member 24 is vertically extended from the cathode 6 toward the phosphor screen 12 of the anode 8. In this structure, an end portion 25 of the electron emission member 24 is exposed to the vacuum atmosphere and directed toward the phosphor screen 12. The intensified electron emitting characteristic of the end portion 25 of the electron emission member 24 makes it possible to enhance the overall electron emitting characteristic of the emitter 10 even at the same voltage level.

On page 8, please delete the paragraph beginning on line 8, and replace it with the following:

Under the influence of the magnetic field B, the magnetic material of the alignment component 20 is magnetized to thereby align the carbon fiber components of the electron emission member 24 [~~22~~] in the direction of the magnetic field B.

In the Claims:

Amend claim 16 as follows:

16. (Amended) The field emission display of claim 15 wherein the electron emission member comprises a longitudinal dimension, and is aligned by the [~~electron emission~~] alignment member such that the longitudinal dimension of the electron emission member is substantially perpendicular to the cathode.

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